

REMARKS

Claims 1-19 are pending in this application. Claims 1-19 have been rejected. In view of the following remarks, the Applicants request allowance of the Application.

Claim Rejections under 35 U.S.C. §102

Burfoot Fails to Disclose A Read History as Recited in the Claims.

To anticipate a claim, a reference must describe each and every element in the claim. See M.P.E.P. §2131. Claim 1 recites a system comprising, in relevant part:

an analyzer to calculate an analytical result using at least one data entity stored in a database; and

a **data flow manager**, responsive to read requests from agents to the database, **to store a read history** identifying a relationship **between the data entity being read and the analytical result**.

Claims 9 and 14 recite similar features. The Examiner asserts that Burfoot discloses the recited data flow manager and correction server in his description of business logic and a calculation engine/spreadsheet peer, respectively. Applicants respectfully disagree.

The Examiner asserts that Burfoot discloses the recited data flow manager and read history in a discussion of a "spreadsheet peer" transmitting data between a persistence layer and a client at paragraphs 33-38 and 46. However, the spreadsheet peer merely uses traditional synchronization techniques to maintain consistent data:

[T]he peer must use appropriate synchronization techniques to ensure data is not modified concurrently by multiple client applications, and **must make data commitments at appropriate times** to ensure transactional integrity.

¶ 0046 (emphasis added). While Burfoot's system may prevent concurrent data modification, there is no indication that it does so by logging or otherwise storing records of client access and a related analytical result. This is unsurprising, since Burfoot's system prevents data inconsistency by restricting **when** data can be changed by the spreadsheet peer, not by tracking changes and accounting for inconsistencies at a later point in time. Thus, Burfoot fails to describe storing any read history, much less a read history identifying a relationship between

a data entity being read and an analytical result. For at least this reason, the claims are not anticipated by the cited reference.

Burfoot Fails to Disclose a Corrections Server as Recited in the Claims.

Claim 1 further recites, in relevant part:

a corrections server that, when corrections are made to the database, identifies corrected entities in a corrected entity log and **compares the corrected entity log against the read history** to identify analytical results **rendered possibly inconsistent** due to the correction.

Claims 9 and 14 recite similar features. Claim 19 recites a third database to store a list of uncorrected data entries **identified as potentially inconsistent**. The Examiner asserts that Burfoot discloses these features at paragraphs 0045-46. Applicants respectfully disagree. Burfoot merely describes a DSS server that performs calculations and provides the resulting values to clients. There is no suggestion that the DSS server or its calculation engine ever compares a corrected entity log to a read history or identifies possibly-inconsistent results resulting from a correction made to a database.

It is unsurprising that Burfoot lacks a correction server, since his system has other techniques for maintaining data consistency. In Burfoot's system, all calculations are performed by the DSS server, and clients are not allowed to make changes that might create inconsistent data:

One idea that is particularly important to the concept of distributed spreadsheets is that **the DSS server never serves a formula or reference, only a value**. Therefore, it is necessary for the DSS server to be able to run spreadsheet calculations itself, and make those calculations **before** serving values. ... When the spreadsheet lookup subsystem finds the DSS object needed by a particular request, it invokes the spreadsheet peer to read the object from the persistence layer...the peer must use appropriate synchronization techniques **to ensure data is not modified concurrently by multiple client applications**, and must make data commitments **at appropriate times to ensure transaction integrity**.

¶ 0045-46 (emphasis added). Thus, Burfoot avoids data inconsistencies by **preventing** concurrent modification by multiple clients. Nowhere does Burfoot suggest that the synchronization techniques used by the spreadsheet peer may fail or otherwise allow inconsistent analytical results. Burfoot simply has no need to identify analytical results that may be inconsistent due to a correction. Even if Burfoot's technique **could** result in inconsistent

data, there is no indication of how Burfoot's system could subsequently identify such inconsistent data. Burfoot's system fails to describe identifying analytical results rendered possibly inconsistent due to a correction or any similar feature and, therefore, fails to disclose each and every feature of the claims. For at least this reason, the claims are not anticipated.

Burfoot Fails to Disclose the Features Recited in Claim 19.

Claim 19 recites, in relevant part:

a first database...; and

a correction manager...comprising:

a second database to store a list of corrected data entries in the first database; and

a third database to store a list of **uncorrected data entries** identified as potentially inconsistent **due to a correction performed on an entity listed in the second database.**

The Examiner asserts that Burfoot's web server is the recited second database, and Burfoot's persistence layer is the recited third database. This is incorrect. To anticipate the recited second database, Burfoot's web server would have to store a list of corrected data entries in the first database. However, Burfoot lacks any indication or suggestion that the web server stores data at all. The web server merely passes information between clients and the rest of the DSS system:

This component connects the system to the outside world...The web server connects to the business logic and passes the information sent to it from various clients.

¶ 0040.

Further, the differences between web servers and databases are well-known in the art, and are explicitly described in Burfoot:

1. Persistence Layer. This is where the application stores the data that represents the spreadsheets. In many web applications, a relational database (RDBMS) is used for this purpose. Alternatively, the spreadsheets could be stored as simple files, preferably in an XML format.

3. Web Server. This component connects the system to the outside world. A variety of web servers exist today, such as Apache and Microsoft Internet Information Server.

¶ 0032, 0040. Burfoot does not suggest that his web server also functions as a database, and one of skill in the art would not interpret the described web server to be a database.

The Office Action also fails to show how Burfoot discloses the recited third database. According to the Examiner's analysis, Burfoot's persistence layer would have to store a list of uncorrected data entries identified as potentially inconsistent due to a correction performed on an entity listed in a second database (the web server, as interpreted by the Examiner). Even if the web server stores the recited list of corrected data entries, which Applicants do not concede, there is no suggestion anywhere in Burfoot that the persistence layer stores a list of **uncorrected** entries based on the list of **corrected** entities. These features are simply absent from Burfoot's disclosure. Thus, Burfoot's system lacks at least the second and third databases as recited in the claims and, for at least this reason, fails to anticipate the claim.

Further, to anticipate a claim a reference must disclose each and every element of the claim, **and** the elements must be arranged as required by the claim. *See* M.P.E.P. §2131 (citing *In re Bond*, 910 F. 2d 831, 15 USPQ 2d 1566 (Fed. Cir. 1990)). The Examiner interprets Burfoot's business logic, web server, and persistence layer as the recited correction manager, second database, and third database, respectively. Claim 19 recites that the correction manager comprises the second and third databases. However, Burfoot's business logic does not comprise or contain the web server and persistence layer. As shown by Burfoot's Figure 1 and as described in paragraphs 0031-38, the business logic, web server, and persistence layer are **separate components** of the DSS server. There is simply no indication that Burfoot's business logic comprises a web server and a persistence layer, or that any similar configuration is possible in Burfoot's system. Thus, the reference fails to disclose all the elements, arranged in the same way, as recited in the claim. For at least this reason, the reference fails to anticipate claim 19.

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CONCLUSION

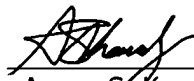
All outstanding rejections have been overcome. It is respectfully submitted that, in view of the foregoing amendments and remarks, the application is in clear condition for allowance. Issuance of a Notice of Allowance is earnestly solicited.

Although not believed necessary, the Office is hereby authorized to charge any fees required under 37 C.F.R. § 1.16 or § 1.17 or credit any overpayments to Deposit Account No. 11-0600.

The Office is invited to contact the undersigned at 202-220-4200 to discuss any matter regarding this application.

Respectfully submitted,

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